

11. The catalyst of claim ¹⁰1 wherein said catalyst comprises a first layer containing a magnesium salt and a second layer containing a copper salt and, optionally, a lithium salt.

12. The catalyst of claim ¹¹2 wherein said salts are chloride salts.

13. The catalyst of claim ¹⁰4 comprising from about 0.1% to about 5% magnesium, from about 2% to about 10% copper, and from about 0 to about 5% lithium.

14. The catalyst of claim ¹³4 comprising from about 0.1% to about 2% magnesium, from about 2% to about 8% copper, and from about 0 to about 1% lithium.

15. The catalyst of claim ¹⁰1 wherein said γ -alumina has a surface area of from about 50 to 220 m²/g and an average particle size of from about 40 to 60 μ m.

16
18. A process for preparing a catalyst comprising the steps of:

- (a) impregnating γ -alumina with a solution containing a magnesium salt;
- (b) drying the product of step (a); and
- (c) impregnating the product of step (b) with a solution containing a copper salt and, optionally, a lithium salt.

17
~~19~~

The process of claim 7 wherein said salts are chloride salts.

18
209.

A catalyst produced by the process of claim 7.

19
120.

The catalyst of claim 9 containing by weight from about 0.1% to about 5% n, from about 2% to about 10% copper, and from 0 to about 5% lithium.

A220
70

The catalyst of claim 10 containing by weight from about 0.1% to about 2% n, from about 2% to about 8% copper, and from 0 to about 1% lithium.

21
23

The catalyst of claim 11 containing by weight from about 0.5% to about 1.5% n, from about 3% to about 6% copper, and from about 0.1% to about 0.3% lithium.

22
29.

The catalyst of claim 9 wherein said γ -alumina has a surface area of from 50 to 220 m²/g and an average particle size of from 40 to 60 μ m.

23
25

The catalyst of claim 10 wherein said γ -alumina has a surface area of from 50 to 220 m²/g and an average particle size of from 40 to 60 μ m.

24
20
15
10
5
0

The catalyst of claim 11 wherein said γ -alumina has a surface area of from 50 to 220 m²/g and an average particle size of from 40 to 60 μ m.

25
26. The catalyst of claim 12 wherein said γ -alumina has a surface area of from 50 to 220 m²/g and an average particle size of from 40 to 60 μ m.

28
28 The catalyst of claim 22 wherein said γ -alumina has a surface area of from 80 to 180 m²/g.

27
25. The catalyst of claim 14 wherein said γ -alumina has a ~~0~~ surface area of from 80 to 180 m²/g.

28
20. The catalyst of claim 15, wherein said γ -alumina has a surface area of from 80 to 180
m²/g.

29
~~20~~ 25
The catalyst of claim 16 wherein said γ -alumina has a surface area of from 80 to 180
m²/g.

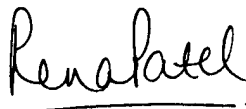
30
~~31~~

A2

A process for the catalytic gas phase oxychlorination of ethylene comprising reacting ethylene, hydrogen chloride and a source of oxygen in the presence of the catalyst of any one of claims 1 to 6 and 9 to 16.

10-15 16-25

Respectfully submitted,



Rena Patel, Ph.D.

Registration No. 41,412

Date: July 6, 2000

WOODCOCK WASHBURN KURTZ
MACKIEWICZ & NORRIS
One Liberty Place - 46th Floor
Philadelphia, PA 19103
(215) 568-3100

00502007-001700